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| Photo displaying partial image of two pie charts on a canvas-textured page |
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**Week 7 Assignment**

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| C# Code: |
| int numberInput, dash1, dash2;  string text1, text2;  bool conTinue;  do{  Console.Write("1: Convert Inches to CM\n2: Convert Fahrenheit to Celsius (ºF to ºC conversion)\n3: Calculate Quadratic Equations\n4: Exit\nPlease enter the number you choose: ");  numberInput = Convert.ToInt32(Console.ReadLine());  if (numberInput == 4)  {  text1 = "Exit";  dash1 = text1.Length;  Console.WriteLine(new string('-', dash1));  Console.WriteLine(text1);  break;  }  else if (numberInput < 1 || numberInput > 3)  {  conTinue = true;  }  else  {  conTinue = false;  continue;  }  switch (numberInput)  {  case 1:  {  text1 = "To convert, please enter measurement in Inches: ";  dash1 = text1.Length;  Console.WriteLine(new string('-', dash1));  Console.Write(text1);  double inches = Convert.ToDouble(Console.ReadLine());  double centimeters = inches \* 2.54;  text2 = $"{inches}\" Converted to Centimeters: {centimeters}cm";  dash2 = text2.Length;  Console.WriteLine(new string('-', dash2));  Console.Write(text2);  conTinue = false;  break;  }  case 2:  {  text1 = "To convert, please enter the temperature in Fahrenheit: ";  dash1 = text1.Length;  Console.WriteLine(new string('-', dash1));  Console.Write(text1);  double fahrenheit = Convert.ToDouble(Console.ReadLine());  double celsius = (fahrenheit - 32) \* 5 / 9;  text2 = $"{fahrenheit}ºF Converted to Celsius: {celsius:F1}ºC";  dash2 = text2.Length;  Console.WriteLine(new string('-', dash2));  Console.Write(text2);  conTinue = false;  break;    }  case 3:  {  text1 = "\"Calculate Quadratic Equations\"\n";  dash1 = text1.Length;  Console.WriteLine(new string('-', dash1));  Console.WriteLine(text1);  double a, b, c, delta, X1, X2, X;  Console.Write("Please enter A value: ");  a = Convert.ToDouble(Console.ReadLine());  Console.Write("Please enter B value: ");  b = Convert.ToDouble(Console.ReadLine());  Console.Write("Please enter C value: ");  c = Convert.ToDouble(Console.ReadLine());  delta = (b \* b) - (4 \* a \* c);  string discriminant;  if (delta > 0)  {  discriminant = "Positive";  }  else if (delta < 0)  {  discriminant = "Negative";  }  else  {  discriminant = "Zero";  }  text2 = $"Discriminant is: {discriminant}";  dash2 = text2.Length;  Console.WriteLine(new string('-', dash2));  Console.WriteLine(text2);  switch (discriminant)  {  case "Positive":  {  X1 = (-b + Math.Sqrt(delta)) / (2 \* a);  X2 = (-b - Math.Sqrt(delta)) / (2 \* a);  Console.WriteLine($"There are two distinct roots:\nX1: {X1}\nX2: {X2}");  break;  }  case "Negative":  {  Console.WriteLine("No real roots.\nThere are two distinct (non-real) complex roots.");  break;  }  default:  X = -b / (2 \* a);  Console.WriteLine($"There is exactly one real root: {X}");  break;  }  conTinue = false;  break;  }  default:  text1 = "Error! You entered an out-of-range number!";  dash1 = text1.Length;  Console.WriteLine(new string('-', dash1));  Console.WriteLine(text1);  conTinue = true;  break;  }  }while(conTinue == true); |